

✓ In lines 4-5 of page 177, in claim 7, delete ", the sum p+q being not more than 10".

✓ In lines 6-7 of page 177, in claim 7, delete ", the sum r+s being not more than 10".

✓ In lines 8-9 of page 181, in claim 21, delete ", the sum p+q being not more than 10".

✓ In lines 10-11 of page 181, in claim 21, delete ", the sum r+s being not more than 10".

REMARKS

Claims 1-36 are pending in this patent application. A request for a three (3) month extension of time in which to respond to the Office Action is filed simultaneously herewith, including appropriate payment. The pedigree of the application has been updated to reflect the issuance of U.S. application ser. no. 08/088,658. Claims 1 and 21 have been amended to more particularly point out the claimed invention.

Claims 1-6 are rejected under 35 U.S.C. § 112, first paragraph, for alleged lack of enablement. As best understood, the Office Action appears to assert that the claims are not enabled for polymers other than those comprised of the monomers recited in claim 21 "or similar monomers without the limitations given for parameters "y" and "z". The apparent basis for the rejection is that the preparation of polymers from monomers other

A

than those of claim 21 would allegedly require undue experimentation because protective groups would be required "on nucleobase as well as terminal amino groups and carboxyl groups to direct such synthesis." Applicants respectfully request reconsideration of the rejection, as there is no reason to believe that the skilled artisan would be unable to practice the invention as claimed.

The use of protective groups in organic chemistry is a highly developed field. Indeed, the literature in this area is replete with treatises and manuals that provide not only the identities of such groups, but also their reactivities, and procedures for their addition and removal. In particular, the use of protective groups in peptide chemistry is especially well developed. See, for example, Greene, T.W. and Wuts, P.G.M., *"Protective Groups in Organic Synthesis"* 2d. Ed., Wiley & Sons, 1991.¹ Thus, the selection of protecting groups for assembly of monomers into oligomers would not require "undue" experimentation, and the Office Action has provided no evidence to the contrary. Accordingly, Applicants respectfully request withdrawal of this rejection under 35 U.S.C. § 112, first paragraph.

¹ Applicants believe that this reference is available to the Examiner. If this is not correct, Applicants will furnish a copy to the Examiner upon request.

A

Claims 7-36 stand rejected under 35 U.S.C. § 112, second paragraph, for alleged indefiniteness. While Applicants feel that the claims are definite within the patent laws as written, in the interest of advancing prosecution, claims 7 and 21 have been amended to more particularly point out the claimed invention. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claims 1-6 are rejected under 35 U.S.C. § 102(b) for alleged anticipation by Summerton et al., international publication WO 86/05515 ("Summerton"). The Office Action asserts that the recitation in the Summerton reference of polymers having "protective moieties" anticipate the present claims. Specifically, The Office Action asserts that "bulky groups" allegedly disclosed in Summerton, and apparently exemplified by benzoyl and nitrobenzoyl groups, are within Applicants' definition of "conjugate group." However, the term "conjugate group" is defined in the specification at, for example, page 15, lines 17-25 as follows:

The term "conjugate" as used herein includes a reporter enzyme, a reporter molecule, a steroid, a carbohydrate, a terpene, a peptide, a protein, an aromatic lipophilic molecule, a non aromatic lipophilic molecule, a phospholipid, an intercalator, a cell receptor binding molecule, a crosslinking agent, a water soluble vitamin, a lipid soluble vitamin, an RNA cleaving complex, a metal chelator, a porphyrin, an alkylator, and polymeric

A

compounds such as polymeric amines, polymeric glycols and polyethers.

As can be seen, neither the term "bulky group" nor the specific terms benzoyl or nitrobenzoyl appear in this definition. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection under 35 U.S.C. § 102(b), or clarification as to why the specific groups disclosed in the Summerton reference are allegedly conjugate groups of the present invention.

Claims 1-20 are provisionally rejected for alleged obvious-type double patenting over claim 28 of copending U.S. Application No. 08/595,387. Applicants will address this rejection upon indication of allowable subject matter in the present application.

In view of the foregoing, Applicants submit that the claims presently before the Examiner patentably define the invention over the applied art and are otherwise in condition for ready allowance. An early Office Action to that effect is, therefore,


A

DOCKET NO.: ISIS-2112

PATENT

earnestly solicited.

Respectfully submitted,


Michael P. Straher
Registration No. 38,325

Date: August 3, 1998

WOODCOCK WASHBURN KURTZ
MACKIEWICZ & NORRIS
One Liberty Place - 46th Floor
Philadelphia, PA 19103
(215) 568-3100